New generation of heat pumps Gorenje Product information Model name: **Aerogor ECO Inverter 13 A** Type: air to water (DC Inverter)



Heating system with heat pump air to water (Aerogor ECO Inverter 13 A)

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Operating modes - (Aerogor ECO Inverter 13 A)



HEATING MODE

DOMESTIC HOT WATER



ACTIVE COOLING

ADVANTAGES AND CHARACTERISTICS

HEAT PUMP Aerogor ECO Inverter

DC Inverter compressor allows optimum adjustment to actual requirements for heating or cooling.

• Low operating expenses resulting from a high COP according to the EN 14511 standard, ranging from 4.0 to 4.7 (A7/W35).

• Maximum heating water temperature of up to 55 °C allows installation of the heat pump in systems with radiator heating.

- Advanced regulation unit allows connection to solar panels and use of heat generated by them.
- performance range from 4 to 12,6 kW,
- Operating range from -25 °C to +45 °C,
- lower heating costs resulting from
- Excellent comfort owing to reversible performance for both heating and cooling.



Outdoor unit - HEAT PUMP Aerogor ECO Inverter 13 A



Indoor unit - Hydrobox for Aerogor ECO Inverter 13 A



Main components of outdoor unit - HEAT PUMP Aerogor ECO Inverter



1 Panasonic DC Inverter Fan Motor

gorenje

- 2 Panasonic DC Inverter Compressor
- **3** Carel EEV and EVD Controller
- **4** Evaporator Heater
- **5** Compressor Crankcase heater

Main components of indoor unit - Hydrobox Aerogor ECO Inverter 13 A

- **1** Plate heat exchanger (SWEP)
- 2 Circulating pump A energy class
- (Grundfos UPM GEO 25-85 180)
- 3 Three-way valve (Watts)
- 4 Receiver tank
- **5** Connection terminal
- 6 Indoor PC board
- 7 Electrical heater 3 kW
- 8 Refrigerant connection size 3/8" 5/8"



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TOUCH SCREEN CONTROL UNIT



Basic control unit allows following control function:

- 2 mixing heating circuits or
- 2 direct heating circuits or
- 1 mixing and 1 direct heating circuits
- 3-way switching valve (switching between DHW mode and heating mode)
- Possibility to connect and control 3 additional circulation pumps (for more complex heating systems)
- Regulation of 3 kW electric instantaneous heater
- Connection of 2 external heaters (one for storage tank and to another DHW tank)
- Regulation of additional heat sources with mixing circuits
- Regulation of a bivalent operation
- Setting the heating curve with 5 points
- Legionella control programme
- "First heating" function
- Sleep Mode

Supplied with following components:

- 2 x sensors for mixing valves, 1 x room temperature sensor
- 1 x sensor for buffer tank,
 - 1 x sensor for DHW tank (installation position upper part of the boiler)



OPTION 1:

Application system sketch with HWT (without buffer tank)

Heating mode: floor or radiators heating system

HEAT PUMP Aerogor ECO Inverter 13 A

Description	Symbol
Domestic hot water tank	DHW
Mixing valve 3 for domestic hot water	MV 3
3 – way switching valve for heating system and DHW	M1
Circulating pump for DHW tank and floor heating system	P0



OPTION 2:

Application system sketch with DHW and buffer tank

Heating mode: floor, radiators and fan coils heating system

HEAT PUMP Aerogor ECO Inverter 13 A

Description	Symbol
Domestic hot water tank	DHW
Mixing valve 1 for radiators and fan coils	MV 1
Mixing valve 2 for floor heating system	MV 2
Mixing valve 3 for domestic hot water	MV 3
3 – way switching valve for heating system and DHW	M1
Circulating pump for DHW tank and floor heating system	P0
Circulating pump for radiators and fan coils	P1
Circulating pump for floor heating system	P2



Technical specification - HEAT PUMP Aerogor ECO Inverter 13 A

Model			Aerogor ECO Inverter 13 A
Power Supply		V/Hz/Ph	220-240/50/1
Refrigerant / mass		Type/kg	R410A/3.5
Fuse		A	20/C
Heating mode (A7/W35)			
Max. Heating Capacity ⁽¹⁾		kW	12.6
C.O.P ⁽¹⁾		w/w	4
Heating Capacity Min./Max. ⁽¹⁾		kW	4.2/12.6*
Heating Power Input Min./Max. ⁽¹⁾		kW	0.90/3.16*
C.O.P Min./Max. ⁽¹⁾		w/w	4.0/4.91*
Cooling mode (A35/W7)			
Max. Cooling Capacity ⁽²⁾		kW	7.9
E.E.R ⁽²⁾		W/W	2.65
Cooling Capacity Min./Max. ⁽²⁾		kW	2.34/7.91
Cooling Power Input Min./Max. ⁽²⁾		kW	0.97/0.29
E.E.R Min./Max. ⁽²⁾		W/W	2.40/3.03
Circuit Max. Pressure		bar	38
Company	Туре		DC Inverter Twin Rotary
Compressor	Quantity/System		1
Fan	Quantity		2
	Airflow	m³/h	4100
	Rated power	W	120
Noise Level	Indoor/Outdoor	dB(A)	30/56
Water Side Heat Exchanger	Туре		Plate Heat Exchanger
	Water Pressure Drop	kPa	40
	Piping Connection	Inch	G1"
Allowable Water Flow	Min. Water Flow		0.37 (1.3)
	Rated Water Flow	L/S (m³/h)	0.61 (2.2)
	Max. Water Flow		0.73 (2.63)
Net Dimension(L×D×H)	Outdoor Unit	mm	1123*400*1195
	Indoor Unit	mm	765*280*509
Packing Dimension(L×D×H)	Outdoor Unit	mm	1160*490*1355
	Indoor Unit	mm	870*350*600
Net Weight	Outdoor	Kg	113
	Indoor Unit	Кg	55
Packing Weight	Outdoor	Кg	123
	Indoor Unit	Kg	60

(1) Heating condition: water inlet/outlet temperature: 30°C/35°C, Ambient temperature: DB 7°C/WB 6°C; EN 14511

(2) Cooling condition: water inlet/outlet temperature: 12°C/7°C, Ambient temperature: 35°C. EN 14511

*At maximum compressor frequency 85 Hz and condition A7/W35. Influence of defrost cycle is not included in test results. Due to the impact